



# UNITED STATES PATENT AND TRADEMARK OFFICE

17A

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,870	10/23/2003	Mingheng Wang	GP-304029	6755

7590 08/16/2006

General Motors Corporation  
Legal Staff, Mail Code 482-C23-B21  
300 Renaissance Center  
P.O. Box 300  
Detroit, MI 48265-3000

EXAMINER

ALAM, FAYYAZ

ART UNIT	PAPER NUMBER
----------	--------------

2631

DATE MAILED: 08/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/691,870	<b>Applicant(s)</b> WANG, MINGHENG	
	<b>Examiner</b> Fayyaz Alam	<b>Art Unit</b> 2631	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 October 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 - 20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 - 20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

**Claims 1 - 4, 8 - 13, and 17 - 20** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Alton (U.S. Application # 2003/0190030)** in view of **Hind et al. (U.S. Application # 2005/00377755)**.

Consider **claims 1, 10, and 19**, Alton discloses wireless communication between a telematics control unit, which comprises a mobile communication device, and a service provider (read as call center) using the cellular network (see [0004]; [0006]; [0012]; and [0014]).

Alton fails to disclose the communication details comprising:

providing a list of wireless networks with an associated ranking to the telematics unit;

determining which wireless networks from the list of wireless networks are available for connection;

selecting a first channel for a wireless network based on the determination and the associated ranking;

monitoring the list for available networks; and

switching to a second channel based on a higher ranked available network.

In the related field of endeavor, Hind et al. disclose a method and thereby a system, and a computer usable medium comprising computer readable program code comprising of:

identifying a plurality of communication networks (read as list of wireless networks; see [0014] and [0023]) and providing to the mobile communication device (read as telematics unit) wherein the mobile communication device selects or assigns priority to the networks (read as ranking; see [0014] and [0023]);

identifying and determining which network has suitable signal strength for communication (read as wireless network available for connection; see [0024]);

based on the priority of the networks, the best (read as first) network is employed (read as selecting first channel; see [0023]); and

determining that the mobile communication device (read as telematics unit) has changed network coverage region and identifying the presence of new communication

networks having suitable signal strength (read as monitoring the list for available networks; see [0024]); and

selecting a wireless network that provides the best services for the mobile communication device (read as switching to a second network based on the higher ranked available networks; see [0023]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Alton with the teachings of Hind et al. in order to implement the existing services of a mobile communication device of a cellular network in a vehicle and thus no change would be necessary and as a result would conserve financial and intellectual resources.

Consider **claims 2 and 11** as applied to claims 1 and 10, Alton fails to disclose that the associated ranking is determined by a preference table.

In the related field of endeavor, Hind et al. disclose the selection (read as ranking) of the list is based upon matching new networks to networks on the preferred list (read as preference table; [0024]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Alton with the teachings of Hind et al. in order to implement the existing services of a mobile communication device of a cellular network in a vehicle and thus no change would be necessary and as a result would conserve financial and intellectual resources.

Consider **claims 3 and 12** as applied to claims 1 and 10, Alton fails to disclose the associated ranking can be determined by a user.

Hind et al. disclose U-PPLMN in figure 2 also known as user defined list for selection of the networks (see [0046] and [0047]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Alton with the teachings of Hind et al. in order to implement the existing services of a mobile communication device of a cellular network in a vehicle and thus no change would be necessary and as a result would conserve financial and intellectual resources.

Consider **claims 4 and 13** as applied to claims 1 and 10, Alton fails to disclose that availability is determined by a signal threshold.

Hind et al. disclose the selection of the list is based upon signal strength (read as signal threshold; see [0024]) of the communication networks.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Alton with the teachings of Hind et al. in order to implement the existing services of a mobile communication device of a cellular network in a vehicle and thus no change would be necessary and as a result would conserve financial and intellectual resources.

Consider **claims 8, 17, and 20** as applied to claims 1,10, and 19 respectively, Alton discloses a TCU (30; figure 2) which comprises a wireless transceiver (58; figure 2) (read as mobile device) and is interconnected to the processor and therefore is in communication with the TCU (30) (see figure 2).

Consider **claims 9 and 18** as applied to claims 1 and 10, Alton discloses a TCU (30; figure 2), which comprises a wireless transceiver (58) (read as mobile device) (see figure 2).

**Claims 5 - 7, and 14 - 16** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Alton (U.S. Application # 2003/0190030)** and **Hind et al. (U.S. Application # 2005/0037755)** as applied to claims above, and further in view of **Carter et al. (U.S. Application # 2004/0152362)**.

Consider **claims 5 and 14** as applied to claims 1 and 10, Alton as modified by Hind et al. fail to disclose the method of scanning for available data channels within a predetermined time period.

In the related field of endeavor, Carter et al. disclose a search time (read as scanning; see [0062]) for searching through pilot signals for a neighbor list being reduced from 40ms to 10ms (read as predetermined time; see [0062]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Hind et al. with the teachings of Carter et al. in order to conserve power by presetting a scan or search time.

Consider **claims 6 and 15** as applied to claims 5 and 14, Alton as modified by Hind et al. fail to disclose the method of scanning within a predetermined time period comprises scanning in substantially real time.

In the related field of endeavor, Carter et al. disclose a search time (read as scanning) of 10ms (read as substantially real time; [see 0062]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Hind et al. with the teachings of Carter et al. in order to conserve power.

Consider **claims 7 and 16** as applied to claims 1 and 10, Alton as modified by Hind et al. fail to disclose the method comprising switching to a channel while data transmission is in progress on a different channel.

In the related field of endeavor, Carter et al. disclose soft handoff (see [0062]) where by definition a connection is made to a new network before it is broken from the present network and therefore data transmission is continuous from one network to another. (read as switching to a channel while data transmission is in progress on a different channel; [0062]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Hind et al. with the teachings of Carter et al. to use a well known method in order to conserve resources such as financial, intellectual, etc.

### ***Conclusion***

3. Any response to this Office Action should be **faxed to (571) 273-8300 or mailed to:**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450



**Hand-delivered responses** should be brought to

Customer Service Window  
Randolph Building  
401 Dulany Street  
Alexandria, VA 22314

4. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Fayyaz Alam whose telephone number is (571) 270-1101. The Examiner can normally be reached on Monday-Friday from 7:30am to 5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Rafael Perez-Gutierrez can be reached on (571) 272-7915. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

Art Unit: 2631

*Fayyaz Alam*

August 1<sup>st</sup>, 2006

  
RAFAEL PEREZ-GUTIERREZ  
SUPERVISORY PATENT EXAMINER  
8/1/06